

WHAT IS CLAIMED IS:

1. A method for forming an aqueous carbon black dispersion comprising providing a reaction mixture comprising carbon black having a DBP uptake of greater than 90cc/100g of said carbon black, a monovalent ion persulfate, and an aqueous medium; subjecting said reaction mixture to a first temperature of from 40 °C to 90 °C for from 2 hours to 24 hours; and neutralizing said reaction mixture to a pH greater than 7.0.
- 10 2. A method for forming an aqueous carbon black dispersion comprising providing a reaction mixture comprising carbon black having a primary particle diameter of less than 18 nanometers and a DBP uptake of less than 70cc/100g of said carbon black, a monovalent ion persulfate, and an aqueous medium; subjecting said reaction mixture to a first temperature of from 40 °C to 90 °C for from 2 hours to 24 hours; and neutralizing said reaction mixture to a pH greater than 7.0.
- 15 3. The method of claim 1 or claim 2 wherein said reaction mixture further comprises a strong acid.
4. The method of claim 1 or claim 2 further comprising, after said neutralization step, subjecting said neutralized reaction mixture to a second temperature of from 20 °C to 40 °C higher than said first temperature for from 2 hours to 12 hours.
- 20 5. The method of claim 1 or claim 2 further comprising adding an anionic or nonionic stabilizer.
- 25 6. An aqueous carbon black dispersion prepared by the method of any of claims 1-5.
7. An aqueous inkjet ink comprising the carbon black dispersion of claim 6.
8. The aqueous ink of claim 7 further comprising an emulsion polymer.